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# Assessment of Road Transport Infrastructure on Residents' Wellbeing in Abeokuta Ogun State

Adewole, Hakeem. A<sup>1</sup>, Adetunji Michael Adekola<sup>2</sup>, Odekunle Folasade Jokotade<sup>3</sup>, Adebayo Gabriel Olabisi<sup>4</sup>, Owolabi, Muhydeen<sup>5</sup>

- Adewole, Hakeem. A (Ministry of Physical Planning and Urban Development, Ogun State Nigeria . hakeemadewole@gmail.com
  - Adetunji Michael Adekola (Ladoke University of Technology Ota, Ogun State maadetunji @ lautech.edu.ng - Correspondece Author
- Odekunle Folasade Jokotade (Bells University of Technology, Ota,Nigeria. Jokotadeshade@gmail.com

  Adebayo Gabriel Olabisi (Ministry of Physical Planning and Urban Development, Ogun State,
  Nigeria. tpl.olabisiadebayo@gmail.com
  - Owolabi, Muhydeen (Centre for Environmental Studies and Design GTE Ota, Nigeria.

    muhydeen.owolabi@gmail.com

### Abstract

Infrastructure is an engine for the economic development of a nation and the support of the people. Efficient transport systems provide economic, social, and health benefits while deficient transport systems in terms of capacity or reliability have an economic cost such as reduced or missed opportunities and lower quality of life. The paper aims to assess the road infrastructure in the city and establish the relationship between the road infrastructure and the well-being of the people in Abeokuta city. This study adopted survey research. Primary and secondary sources were employed. Primary data was obtained from questionnaires, administered to the selected group. Cluster and simple random sampling techniques were used to arrive at 447 questionnaires, of which 423 were received for analysis. Secondary data obtained include maps and a list of local government and wards from the Ministry of Physical Planning. The findings revealed that 61% of the respondents are male, 43% are civil servants, and 13% are transporters. Most respondents (62%) earn above 50,000 naira monthly. Employment creation due to good road infrastructure was not achieved in the study area. A healthy environment as a result of road infrastructure is not feasible in the region, the majority of Abeokuta residents do not have a good quality environment as it ought to have been provided by road infrastructure, the city only has good distributor roads while the access roads are in shamble across the central areas which impede the wellbeing of the people in Abeokuta city. The well-being of the people in Abeokuta is at a minimum and requires redress. It is therefore recommended that the government should rehabilitate the existing roads to standard and encourage the planting of vegetation to protect residents from carbon emissions to combat climate change to improve the resident's well-being.

Keywords: Infrastructure, road, well being, development.

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### I. Introduction

Infrastructure is a significant source of development in every nation as the growth and development of such a nation; mostly economic development, is tied to the level of infrastructural development in such nation (Mark Zandi, 2011). This is about the belief of Rao who states that "the link between infrastructure and economic development is not a once and for all affair. It is a continuous process; and progress in development has to be preceded, accompanied, and followed by progress in infrastructure if we are to fulfill our declared objectives of generating a self-accelerating process of economic development in a nation"

The study of Yelena Popova (2016), sees the infrastructure of a nation to be divided into two broad categories: social infrastructure and economic or production infrastructure. The social infrastructure comprises such infrastructure or subsystems as healthcare, education, culture, tourism, and others., while the economic infrastructure consists of transport and transportation systems, telecommunication, electrical grid, water supply system, bridges, and roads among others. This division is relatively symbolic. The social infrastructure has a significant impact on the economic one, and the economic infrastructure presupposes the level of development of the social infrastructure.

www.ijres.org 51 | Page

Barro (1990) is of the view from a theoretical point that one of the main questions concerning the relationship between infrastructure and economic growth is whether infrastructure raises growth in a transitory way, as the inclusion of infrastructure in a neoclassical growth model would predict, or whether it spurs growth permanently in the spirit of the endogenous growth theory. Again, this may depend on the specific circumstances and differ across infrastructure types transportation may primarily bring transitory benefits. Because of its intensive use of infrastructures, the transport sector is an important component of the economy and a common tool used for development. This is even more so in a global economy where economic opportunities have been increasingly related to the mobility of people and freight, including information and communication technologies. A relation between the quantity and quality of transport infrastructure and the level of economic development is apparent. High-density transport infrastructure and highly connected networks are commonly associated with high levels of development. When transport systems are efficient, they provide economic and social opportunities and benefits that result in positive multiplier effects such as better accessibility to markets, employment, and additional investments. When transport systems are deficient in terms of capacity or reliability, they can have an economic cost such as reduced or missed opportunities and lower quality of life.

The concept of well-being on the other hand defines the broad illustration of the standard of living of the set of population with certain characteristics (e.g. lower income people) and comprises concepts that measure the subjective satisfaction of people (such as happiness, relations within families and with friends, with colleagues etc.) and objective indicators. In the study of (Statham and Chase, 2010; Rees et al., 2010), well-being reflects the quality of life of the country's population. The indicator is not static, and vice versa it is highly dynamic and changes together with the ideas and perceptions of the people regarding the possibility of fulfilling the goals of their life, both personal and social. Many researchers consider the indicators of health as the main factors of well-being; Some measures such as the New Economics Foundation's Happy Planet Index place particular emphasis on environmental impact and sustainability (Happy Planet Index). The World Health Organization defines well-being as a positive mental health in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community".

According to Rodrigue (2017), there is no single transport mode that has been solely responsible for the growth of a nation. Instead, modes have been linked with the economic functions they support and the geography in which growth was taking place in the nation. Hence, different modes of transportation relate to the supporting growth and well-being of a nation. Air, rail, water, and road can be identified in Nigeria. While most of the developed countries of the world have significantly developed these modes of transport and they are being used as a significant factor for the well-being of their citizens, the provision in Nigeria is at a minute level except the road transport. Road transport itself as a focus of this study is also at a less appreciable level in Nigeria due to the bad condition of the roads in the country. Abeokuta, the capital city of Ogun State, Nigeria, is characterized by different road infrastructure, categorically named Ogun Standard Roads by Senator Ibikunle Amosun's Administration (ex-governor of Ogun State) and ranging from express to arterial, distributor, and access roads. Some of these roads are in fair condition as to what is obtainable in the world. However, to what extent have these roads been contributing to the well-being of the people in the state capital? To establish this fact, the objectives therefore, comprise of determination of indicators for the well-being of the people in the city, determining the population distribution and the road infrastructure in the city, and establishing the relationship between the road infrastructure and the wellbeing of the people in Abeokuta city.

### II. Concept of Wellbeing

Well-being has been defined as the combination of feeling good and functioning well; the experience of positive emotions such as happiness and contentment as well as the development of one's potential, having some control over one's life, having a sense of purpose, and experiencing positive relationships (Huppert, 2009). It is a sustainable condition that allows the individual or population to develop and thrive. The term subjective well-being is synonymous with positive mental health. The World Health Organization defines positive mental health as "a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can contribute to his or her community". This conceptualization of well-being goes beyond the absence of mental ill health, encompassing the perception that life is going well.

Well-being has been linked to success at professional, personal, and interpersonal levels, with those individuals high in well-being exhibiting greater productivity in the workplace, more effective learning, increased creativity, more prosocial behaviors, and positive relationships (Huppert, 2013). Further, longitudinal data indicates that well-being in childhood goes on to predict future well-being in adulthood (Richards, 2011). Higher well-being is linked to several better outcomes regarding physical health and longevity (Diener, 2017) as well as better individual performance at work (Knapp, 2011), and higher life satisfaction has been linked to better national economic performance (Deaton, 2008).

www.ijres.org 52 | Page

### 2.1. Measurement of well-being

The term well-being is multidimensional and can be measured with different criteria. The different attempts by different professionals to measure wellbeing, see them using a single or specific one item. In economic or political research, life satisfaction or happiness, or a limited set of items regarding the quality of life is used (Trapero et al, 2015). Yet, the fact that well-being is multi-dimensional, it goes beyond a specific indicator of happiness or pleasurable experience (Dolan, 2007; Huppert, 2004; Khaneman, 2006). Assessing well-being using a single subjective item approach fails to offer any insight into how people experience the aspects of their lives that are fundamental to critical outcomes. An informative measure of well-being must encompass all the major components of well-being, both hedonic and eudaimonic aspects (Allin et al, 2007), and cannot be simplified to a unitary item of income, life satisfaction, or happiness.

However, this study developed a more robust measurement of well-being that allows researchers and policymakers to measure well-being both as a composite construct and at the level of its fundamental dimensions. Such a measure makes it possible to study overall well-being in a manner that goes beyond traditional single-item measures, which capture only a fraction of the dimensions of well-being, and because it allows analysts to unpack the measure into its core components to identify strengths and weaknesses. It, therefore, makes use of the following items as an indicator for the well-being measurement:

Employment: employment is a strong factor in the measurement of well-being as every income one has is associated with the nature of the job he does and the aftermath returns from the job that he uses to take care of himself. The road may be capable of creating good employment or aiding the existing ones through the ease of movement to and from the places of employment. How have these roads created one in the study area?

Health status—both physical and mental health are correlated with measures of subjective well-being (Dolan, Peasgood, and White, 2008), and there is evidence that changes in healthy status cause changes in life satisfaction (Lucas, 2007). The good quality of roads is capable of promoting a healthy environment, and healthy humans due to ease of movement daily on roadways that are free of traffic congestion, potholes, and potential accidents/crashes. How has this been achieved in the study area?

Work/life balance—there is significant evidence that aspects of work/life balance impact subjective well-being, in particular commuting (Stutzer and Frey, 2010; Kahneman and Kruger, 2006), and time spent moving from places of work and returning home. The delay usually witnessed on the road contributes to daily stress as people move from and to the places of their daily bread. Is there a balance between the work and life in the area? **Education and skills**—education and skills have an obvious interest both as variables for cross-classification and because there is good evidence that education is associated with subjective well-being at a bivariate level (Blanchflower and Oswald, 2011; Helliwell, 2008). Good education suggests that people will be able to adequately relate on the roadway e.g. the use of road signs and personal interactions with other road users. To what extent have these been achieved in the study area?

**Social connections**— social contact is one of the most important drivers of subjective well-being, as it has a large impact both on life evaluations and on affect (Helliwell and Wang, 2011b; Kahneman and Krueger, 2006; Boarini et al., 2012). The roadway served as a link between the home and the center of social activities. Social connection becomes easy when the road is satisfactory for people's movement while wellbeing is promoted when there are good social interactions. Are the people connected socially in the area?

Civic engagement and governance— generalized trust in others as well as more domain-specific measures of neighbourhood and workplace trust are crucial factors when accounting for variation in subjective well-being (Helliwell and Wang, 2011). The contribution of the citizens in infrastructure provision (e.g. roads) by deciding which to provide and appropriate provisions by the government is a form of promoting the well-being of the people as they are satisfied with their input in the provision of infrastructure by the government. Is there any engagement of people in the provision of infrastructure in the area?

Environmental quality—environmental quality is inherently a geographic phenomenon, and integrating datasets on environmental quality with household-level data on life satisfaction is costly. Nonetheless, there is some evidence that noise pollution (Weinhold, 2008) and air pollution (Dolan, Peasgood, and White, 2008) have a significant negative impact on life satisfaction. Silva, De Keulenaer and Johnstone (2012) also show that subjective satisfaction with air pollution is correlated with actual air pollution. To understand the impact of environmental quality on subjective well-being. A good road that is free from any form of pollution especially air, roads with green growth sideways, and good roadways are a potential source of quality wellbeing. What is the quality of the environment in the study area?

**Security-** is important to subjective well-being. This is reflected in correlations between experience of victimization and subjective well-being at the individual level (Boarini et al., 2012), as well as by subjective perceptions of safety. For example, living in an unsafe or deprived area is associated with a lower level of life satisfaction. Road infrastructure can make or mar the security system of a place e.g. in emergency and rescue situations. Are the roads in the area capable of securing the life of the people in the area?

www.ijres.org 53 | Page

**Cost of living:** The cost of living can be reduced or increased as a result of the quality of the road network of an area. Good road infrastructure reduces the cost of living in an area while it increases the cost if the road is bad. Living in an aesthetically pleasing environment with a low cost of living is an indication of good and quality well-being. How affordable is the cost of living due to road conditions in the area?

**Condition of Road Infrastructure:** The availability of the road infrastructure and the condition at which the roads are determines the satisfaction of the people living in such areas served by the roads and consequently suggests the well-being of the people in such an area. Is there good motorable roads in the area?

According to Adeniran (2016), the transport industry is a system that ensures the successful movement of passengers, cargo, and mail from one point to another point through various modes such as air, water, road, rail, pipeline, and cable. The industry is not a homogenous body of its own but it is made up of different interacting sub-systems working interrelated to ensure the performance of its objectives. Each mode has its various sub-systems or components. The sub-systems are;

**The way:** This is the route where the vehicle plies. It can be natural (for waterways and airways) or artificial (for paved roadways, railways, and cable);

**The vehicle:** This is the carrying capacity for different transport modes such as a motor car for the road, aircraft for air, ship for water, pipe or tube for pipeline and each has different sizes and classes;

**The terminal:** This is a point where there is access to a specialized way. It is used for interchange, fragmentation, and consolidation of traffic for onward movement. Examples are bus-stop, airport, seaport, depot, railway and station); and

**The motive power:** This is the propeller that moves the entire vehicle e.g. the engine, tires, fuel, and others. For an effective road transport system, it must comprise the roadway which includes infrastructures and fittings, the motor vehicle which is the carrying capacity on the road, the bus terminal, and the motive power for the vehicle. Apart from the road infrastructure, there is a need for the management of road transport operations.

### 2.2 Effects of road transport investment on economic development

Road transport investment here mainly refers to road infrastructure investment. The construction and operation of road infrastructure have an important impact on economic and social development. Many economists have been engaged in this field, and have pointed out that there are two types of effects of road transport infrastructure on economic development:

- Forward-induced effects of road construction on economic growth and
- Road construction follow-up ripple effects on economic growth.

### 2.3 Forward-induced effects of road construction on economic growth

The effect of economic activity affecting the economic output of forward-induced effects is seen in building road transport infrastructure to boost economic development. Road construction projects affect economic development. Road transport infrastructure must produce demand of factors of production, thereby increasing the investment of factor markets, and prosperity factor market will stimulate the consumer market investment, so construction of road transport infrastructure will stimulate much investment and development. The more development it brings, the better the well-being of the people.

### III. The Study Area

### 3.1 Geographical Location

Abeokuta, the capital town of Ogun State of Nigeria lies on latitude 70 15'N and Longitude 30 25'E. Its strategic location as a major urban center between important towns and cities such as Lagos, Ijebu-Ode, Sagamu, Sango-Ota, Ilaro, and Ibadan has generated a considerable amount of socio-economic activities which have attracted heavy traffic and a lot of development. The town is about 81km southwest of Ibadan, capital of Oyo State, and 106km north of Lagos. Medium-sized urban settlements in Ogun State such as Ijebu-Ode, Sagamu, Ilaro, and Sango-Ota are strewn within a 100km radius of Abeokuta and are well linked through a network of good roads. It is also accessible by rail via the Lagos-Ibadan rail line. Although it is presently not directly accessible by air, the relative ease of access through the road network affords regional and international connections via the Lagos International Airport and Lagos seaport. (Figures 1, 2, and 3)

www.ijres.org 54 | Page

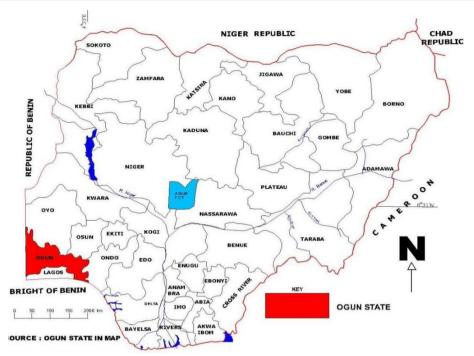


Figure 1: Map of Nigeria showing Ogun State Source: Ministry of Physical Planning and Urban Development, Ogun State.

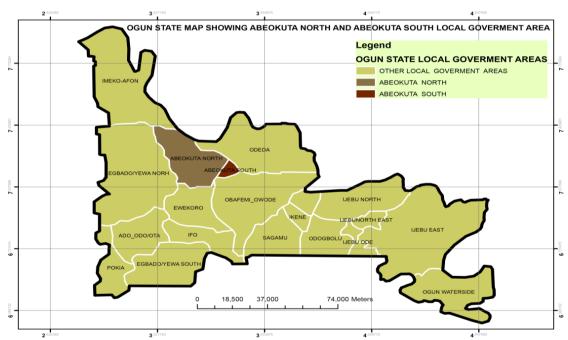


Figure 2: Ogun State showing the Local Government Areas in Abeokuta. Source: Ministry of Physical Planning and Urban Development, Ogun State.

The choice of the town as State Capital in 1976 has boosted its regional and inter-regional roles in the hierarchy of settlements in Ogun State. The State occupies a mid-way position regarding socio-economic development in the country. The Lagos - Ibadan, and Sagamu - Benin Expressways link the State with important towns, in South - Western and Eastern Nigeria, such as Ibadan, Ore, Ondo, Akure, Benin, Asaba, Onitsha, and Port - Harcourt to mention a few.

Abeokuta is located at an altitude of about 157m above sea level amidst isolated outcrops of the natural formation of granite rocks which gives the town its landscape undulating characteristics. Other landforms in the area include; the low escarpment sloping gently from north to the south. The ground elevation of the town ranges from 30m to 300m above the datum point. This is confirmed by the emergence of rivers and streams in the depressed or valley areas of the terrain. Some of the streams that cut across different areas of the town include

www.ijres.org 55 | Page

Sokori, Olomoore, Ijaye, etc. The undulating nature of the topography has a great influence on the existing settlement pattern in the town which gives room for development that provides a good sight-seeing experience. The undulating nature of the land is the force behind the soil erosion as it increases the speed of run-off water and in most cases makes it pronounced within the city whenever there is heavy rainfall. There are two major physical features, which have exerted a direct influence on the physical growth and development of the town. The first is the presence of Olumo Rock (172.8m) in the town passing through the foot of Ashuwon Hill. The second is the Ogun River which bisects the town into two. Abeokuta has hot humid weather, with an average annual rainfall of 963.3mm.

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## Figure 3: Road Map of Abeokuta

Source: Ministry of Physical Planning and Urban Development, Ogun State.

### 3.1.2 Road Infrastructure in Abeokuta

There are two major road networks known as express or Federal roads that pass through Abeokuta city. The first (Abeokuta / Shagamu Road) originates from Shagamu Interchange and enters the capital city of Abeokuta through the governor's Office or State Secretariat and connects kuto to Omida/government house or the city business hub of Oke-Ilewo and connects the second federal road (Lagos/Sango/Abeokuta Express Road) at Brewery. The Second Federal Road (Lagos/Sango/Abeokuta Express Road), emanates from Lagos, passes through Sango-Otta enters Abeokuta through Ita-Oshin, and runs through Lafenwa straight to the Federal Medical Centre and to the outskirt of Abeokuta at Ajebo. The third Federal road originates from Ibadan (Apata), runs through Odeda town, and connects Abeokuta at Osiele while terminating at Adatan.

There are different of state roads across Abeokuta Metropolis which is majorly termed Ogun Standard Roads by Senator Ibikunle Amosuns's Administration. The roads range from Ita-Eko/Oke-Ilewo Road, Omida/Sapon Road, Onikolobo/Mapoly Road, Abiola Way, Totoro Road, Quarry/Panseke Road, Enugada/Akomoje road etc. The roads are majorly in good condition and beautiful to behold. These coupled with numerous access roads existed in Abeokuta. The roads are furnished with modern road infrastructure such as overhead bridges, traffic lights, speed control barriers, way descriptors, bus stops, among others.

www.ijres.org 56 | Page

### IV. Materials and Methods

This study adopted survey research. Primary and secondary sources were employed. Primary data was obtained from questionnaires administered to the selected group, Practical questions were presented to relevant categories of individual road users. Secondary data obtained include maps and a list of local government and wards from the Ministry of Physical Planning.

The population of the research includes all the residents of the state capital and adults who use the road. The study population was segmented into ordinary road users, traders, civil servants/Public Sector, private sector users, and artisans for convenience of analysis. The principal instrument used for data collection in the study was structured questionnaires administered to respondents. The questionnaires were distributed personally to the various respondents thereby giving the researcher the opportunity of making first-hand observation and independent judgment.

Cluster and simple random sampling techniques were used for the study. The approach was a deliberate effort to ensure that all the elements of the population had an equal chance of being selected. Abeokuta City comprises two major Local Governments which are; Abeokuta North Local Government and Abeokuta South Local Government. The political wards in each local government were considered for the survey. Abeokuta North local Government comprises sixteen political wards, out of which thirteen (13) of those wards fall within Abeokuta city, and the remaining three fall outside the city, therefore, the thirteen wards within the city were considered for the survey. Similarly, Abeokuta South Local Government comprises fifteen (15) political Wards and the whole wards fall within Abeokuta city, However, the whole wards, twenty-eight in total from Abeokuta North and South Local Government were grouped into clusters based on their proximity to each other, and one Ward was chosen to represent the cluster. This, therefore, gives a total of eight areas that were considered for the survey (Tables 1 and 2). In all, 8,865 houses were counted in those areas and 5% of it, which amounted to 447 questionnaires, was rolled out but 423 were received for analysis. This gives about 98% of the returns for analysis. This is in line with the belief of Moser and Kalton that "the result of a survey could be considered as biased and of little value if the return rate was lower than 30-0%". This assertion indicates that the response rate of 98% was adequate for the analysis. Respondents were asked to rate the factors according to a scale from 1 to 5 (1=strongly disagree and 5 = strongly agree), a value above "3" would represent agreement. The value "3" represents neutral or undecided.

**Table 1: Selected Wards for the Survey.** 

LG	Wards	Cluster	Selected Wards	
Abk North	Ago Oko Elega Gbagura Ika	Ago Oko Gbagura Ikija	Ago Oko	
	Ikereku Ikija Ilugun/Iberekodo Ita-oshin/Olomoore Lafenwa	Lafenwa Saabo Tototro/Sokori Oke Ago Owu	Lafenwa	
	Oke-Ago Owu Saabo Totoro/Sokori	Ilugun/Iberekodo Elega Ikereku	Elega	
		Ita-Oshin/Olomore Ika	Ita-Oshin/Olomoore	
Abk South	Ake II Ake III (Adatan/Lantoro) Emere	Ake II Ake III (Adatan/Lantoro)	Ake I	
	Ijemo Itoko Ijaye/Idiaba Erunbe/Ijoko/Ilogbo/Oke-Ejigbo	Emere Ijemo Itoko	Itoko	
	Oke-Ijeun Ago-Ijesa/Ijeun Titun/Ago Egun Sodeke/Isale IJeun I Sodeke/Isale IJeun II Oke Yeke/Imo/Saabo Igbore/Itori/Ago Oba Ibara	Ijaye/Idiaba Erunbe/Ijoko/Ilogbo/Oke-Ejigbo Oke-Ijeun Ago-Ijesa/Ijeun Titun/Ago Egun Sodeke/Isale IJeun I Sodeke/Isale IJeun II	Ago-Ijesa/Ijeun Titun/Ago Egun	
		Oke Yeke/Imo/Saabo Igbore/Itori/Ago Oba Ibara	Oke Yeke/Imo/Saabo	

Source: Author's Field Survey, 2023.

www.ijres.org 57 | Page

**Table 2: Sample Frame and Sample Size** 

S/N	Selected Wards	No of Building (sample Frame)	Sample Size (0.01)	No of Retrieved	Questionnaire
1	Ago Oko	1,201	12	12	
2	Lafenwa	2,105	21	21	
3	Elega	6,948	69	66	
4	Ita-Oshin/Olomoore	7,411	74	73	
5	Ake I	2,815	28	27	
6	Itoko	9,502	95	81	
7	Ago-Ijesa/Ijeun Titun/Ago Egun	7,811	78	67	
8	Oke Yeke/Imo/Saabo	7,904	79	76	•
_	Total	45,697	456	423	•

Source: Author's Field Survey(2023).

### 4.1 Validity of the Instrument

To validate the instrument, professionals in Urban and Transportation Planning (e.g. in the Ministry of Transportation) were shown the draft questions for vetting. They ensured that the questions were appropriate and covered the objectives of the study. The ease of completing the questionnaires points to its validity. Approximately five to ten minutes were used to complete one questionnaire.

### 4.2 Structure of Respondents

The target group for the survey is different households within the city who make use of the roads regularly. The sample size was fairly distributed among the households, the first part of the questionnaire contains questions on the demographic information of the respondents and questions about respondents' age, place of work, and position in the place of work. The second part of the questionnaire has questions that appraise the contribution of roads to well-being using a five—point Likert scale.

### 4.3 Method of Data Analysis

The method of analysis used in this research is descriptive in nature for a better understanding of the readers. Point scales were used to calculate the score for each response factor or option.

### V. Findings and Discussion

### 5.1 Demographic Characteristics

Demographic characteristics of the respondents were examined. From 423 questionnaires received for analysis, 39% of the respondents are female while 61% are male. Among the respondents, 43% are civil servants, 13% are transporters, 26% are traders and 18% are artisans. This is an indication that the majority of the respondents are used to the roads across Abeokuta due to the mobile nature of their activities and they ply the roads regularly. The education level of the respondents indicates that 78% are literate. This means, they are conscious of happenings in their environment and can give information as it is. The majority of the respondents (62%) earn above 50,000 naira monthly, with the least among them earning up to a minimum wage of 30,000 naira (10%). This indicates that their opinion is not biased due to low level income which possibly can alter a mindset to an issue.

### **5.2** Performance of the Indicators

Eight indicators were used to measure the contribution of road infrastructure to the well-being of the people in Abeokuta as discussed in 2.1.1. The outcome of the exercise is presented in Table 3.

Table 3: Performance indicators of road infrastructures and wellbeing

S/N	Indicators	Strongly agreed	Agreed	Indifference	Disagree	Strongly Disagree	Total
1	Employment creation	54	86	102	86	95	423
2	Healthy environment	25	38	34	218	108	423
3	Work/life balance	43	46	64	196	74	423
4	Education and skills	148	116	50	71	38	423
5	Social connections	114	101	66	81	61	423
6	Civic engagement and governance	30	37	35	104	217	423
7	Environmental quality	45	55	92	108	123	423
8	Security	188	189	-	25	21	423
9	Cost of living	58	65	43	142	115	423
10	Condition of road infrastructure	40	41	34	102	205	423

Source: Author's Field Survey, 2023.

www.ijres.org 58 | Page

The majority are indifferent in their assessment which means employment creation or maintenance of the present one is not specifically tied to road infrastructure in Abeokuta and will not have a significant impact on the well-being of the people in the area. A healthy environment as a result of road infrastructure is not feasible in the area. this however means that the majority of Abeokuta residents do not have a good quality environment as it ought to have been provided by road infrastructure. This is evident in item 7 in Table 3 as well (See Figure 1). This is also observed during the survey exercise as the city only has good distributor roads while the access roads are in shamble across the central areas except for government reservation areas (GRA) while the suburb such as Elega lacks both the distributor roads and access roads. This, therefore, completely impedes the well-being of the people in Abeokuta city. Work and life balance as a result of good road infrastructure is lacking in Abeokuta except in the central areas where the majority can easily access their residents/destinations. Employment creation as a result of good road infrastructure was not achieved in the study area.

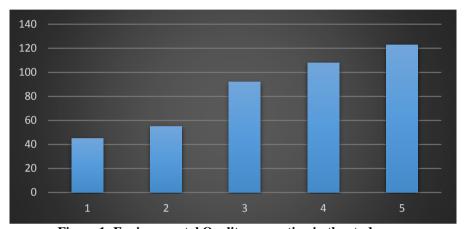


Figure 1: Environmental Quality perception in the study area 1 – Strongly agree, 2 – Agree, 3 – Indifference, 4 – Disagree, 5 – Strongly disagree

Education and road interaction with social connections on the other hand is seen as being positive as people with good education behave maturely on the roads. This is more pronounced in the city centers as most of the social activities are located there and it is characterized by a good road network. This consequently enhances ease of movement on the road and contributes positively to the well-being of the residents. The high cost of living and bad condition of roads are seen to be plaguing the city as a result of the condition of the roads in the areas outside the central areas within the city. The cost of living is said to be double that of the central areas residents while the burden of movement creates unnecessary hardships. Much is spent on transportation while they await a long hour at the bus stop before taxis can pick them up due to bad roads. This, therefore, reduces the well-being of the people in the state capital.

### VI. Conclusion and Recommendation

From the overall assessment, education and good social connections are the positives seen to be contributing to the well-being of the people among other indicators at Abeokuta, Ogun state capital. These two positives are far below what should be obtainable when the well-being of the people is to be promoted considering road infrastructure as a yardstick. Hence, the well-being of the people in Abeokuta is at a minimum and requires redress.

### 6.1 Recommendation

Provisions of more road infrastructure within Abeokuta with a specific focus on outside the central areas of the city and the access roads. Areas such as Ibode-Olude, Elega, Arakanga, Oke-ata, Idi-ori, etc. needed more road infrastructure to ease their movement in and out daily. Similarly, access roads are required in some other parts of central areas apart from GRA and the CBD. Places such as Itoko are in dire need of access roads as the majority of the buildings there are not accessible by cars.

**Use of Public Transport**: the use of the public bus is necessary although, the present administration in the state is bringing in new buses for mass movement, yet, little of such were seen on the road and are not sufficient to cope with the demand of the people especially at morning and evening pick where the journey to and from work brings about a lot of crowd on the road at the same time, also they do not cover lots of routes where people ply on daily basis. Places with bad roads are completely neglected from enjoying the facilities. The provision of more public buses will reduce the cost spent on transportation and reduce the burden on the well-being of Abeokuta residents.

www.ijres.org 59 | Page

**Rehabilitation** of the existing roads to an appreciable standard with functional drainage and adequate beautification will change the quality of the environment. The green will protect residents from carbon emissions, create a shield as people walk along the roads, and can easily help in combating the effects of climate change while an aesthetic nature of the environment is promoted and consequently improves the well-being of the residents in the state capital.

Public engagement in the provisions of road infrastructures will help the decision makers to invest wisely in the best road that will have a positive impact on people rather than embarking on self-satisficing projects. The direct impact will therefore increase the wellbeing of the people in the city.

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www.ijres.org 60 | Page